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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,674	04/14/2004	Raanan A. Miller	3239.1006-001	8081

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FISH & NEAVE IP GROUP
ROPES & GRAY LLP
ONE INTERNATIONAL PLACE
BOSTON, MA 02110-2624

EXAMINER

NGUYEN, LAM S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 01/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/824,674	MILLER ET AL.	
	Examiner	Art Unit	
	LAM S. NGUYEN	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-8, 21-28 and 37-39 is/are rejected.
- 7) ☒ Claim(s) 9-20 and 29-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 35 is objected to because of the following informalities: One of “.” at the end of the claim should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 4-6, 22, 24-26, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Steiner (US 5559327).

Referring to claims 4, 24:

Steiner discloses a system for analyzing one or more ion species of a sample (*column 1, lines 7-15: Mass spectrometers for analyzing chemical structure of a sample associated with the ion source*), the system comprising,

a first ion mobility filter (*FIG. 2, element 12: The prefilter*) associated with a first flow path (*Fig. 2: The flow path from the ion source 20 to the lens 34*) for passing first ions (*FIG. 2: Ions from the ion source 20*) of an ion species of the sample,

a second ion mobility filter (*FIG. 2, element 14: The primary mass filter*) associated with a second flow path (*Fig. 2: The flow path from the lens 34 to the lens 40*) for passing second ions of the sample, the second flow path in fluid communication with the first

Art Unit: 2853

flow path (*FIG. 2: The first and second flow paths are in fluid communication through the lens 34*), and

a third ion mobility filter (*FIG. 2, element 18: The secondary mass filter*) associated with a third flow path (*Fig. 2: The flow path from the lens 42 to the detector 22*) for passing third ions of the sample, the third flow path in fluid communication with the first flow path (*FIG. 2: The second and third flow paths are in fluid communication through the lenses 40, 42 and the cell 16*).

Referring to claims 5-6, 25-26: wherein the second and third ions include the first ions (*FIG. 2: The ions passing the second filter 14 and the third filter 18 are also the ones passing the first filter 12*).

Referring to claims 22, 38: a mass spectrometer in fluid communication with the first flow path (*column 1, lines 12-15*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-8, 21, 23, 27-28, 37, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steiner (US 5559327) in view of Kato et al. (US 5789747).

Steiner discloses the claimed invention as discussed above but is silent about a controller for automatically controlling at least one of the first, second, and third ion mobility filters and a gas chromatograph for providing one or more ion species of the sample to the first flow path,

Art Unit: 2853

wherein at least one of the first, second, and third ion mobility filters includes a differential ion mobility spectrometer (DMS) filter or applying at least one asymmetric RF field, includes an ion mobility spectrometer (IMS) or applying a shuttered voltage gradient.

Kato et al. discloses a mass spectrometer having a gas chromatograph (*FIG. 1, element 1*) for providing ions species to an ion source (*FIG. 1, element 2*) in fluid communication with a quadruple mass spectrometry filter (*FIG. 1, elements 4-10*), and a controller (*FIG. 1, element 13*) for controlling the application of a RF field source (*FIG. 1, element 9*) and a shuttered voltage gradient (*FIG. 1, element 14*) to the quadruple mass spectrometry filter.

Therefore, it would have been obvious for one having ordinary skill in the art at the time invention was made to modify the analyzing device disclosed by Steiner to include a gas chromatograph and the controller as disclosed by Kato et al. The motivation for doing so would have been to be able to separate sample component molecules and to control time period for applying the RF and gate voltages as taught by Kato et al. (*column 4, lines 10-13 and column 5, lines 1-25*).

Allowable Subject Matter

3. Claims 9-20, 29-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claims 9, 29-31: The primary reasons for the indication of the allowability of the claim is the inclusions therein, in combination as currently claimed, of the limitation that a first ion detector in the first flow path or in the second flow path is neither disclosed nor taught by the cited prior art of record, alone or in combination.

Art Unit: 2853

Referring to claims 15, 32: The primary reasons for the indication of the allowability of the claim is the inclusions therein, in combination as currently claimed, of the limitation that a fourth ion mobility filter associated with a fourth flow path for passing fourth ions of the sample is neither disclosed nor taught by the cited prior art of record, alone or in combination.

Claims 10-14, 16-20, 31, and 33-36 are allowed because they depend directly/indirectly on claim 9, 15, 30, or 32.

Response to Arguments

Applicant's arguments with respect to claims 4, 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2853


Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151.

The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
12/29/2005


HAI PHAM
PRIMARY EXAMINER